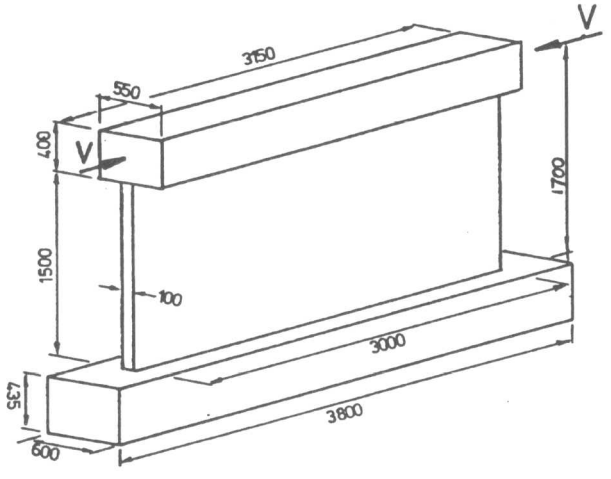
DAMAGE PATTERNS AND HYSTERETIC RESPONSE

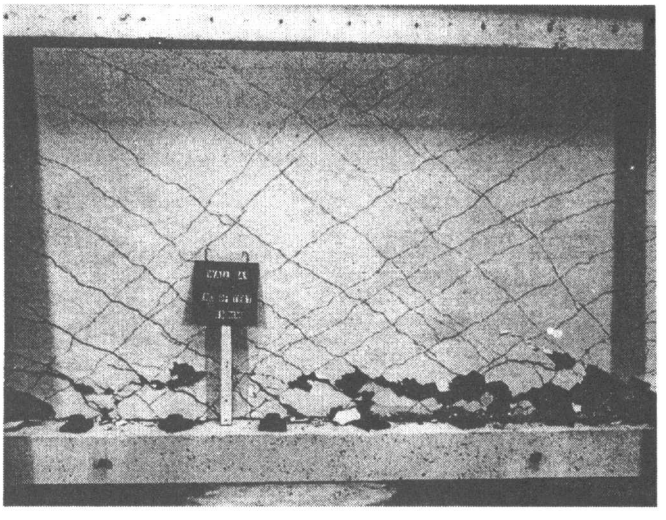
System:	**Reinforced Concrete**
Component Type:	**Isolated Wall or Stronger Wall Pier**
Predominant Behavior Mode:	**Flexure/Sliding Shear**
Secondary Behavior Mode:	—

RC1D **Example 2 of 3**

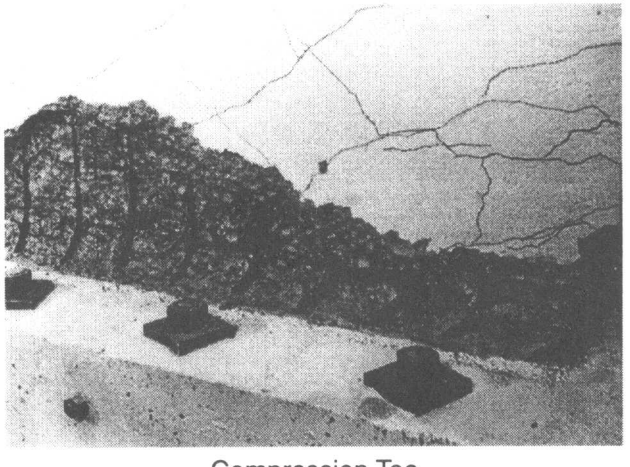
Reference:	Paulay, Priestley, and Synge (1982))
Specimen:	Wall 1



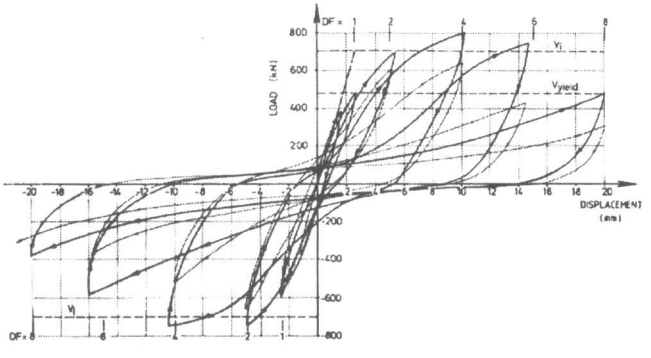
Overall dimensions of typical test units.



Splitting and Crushing of Concrete at Base of Wall



Compression Toe



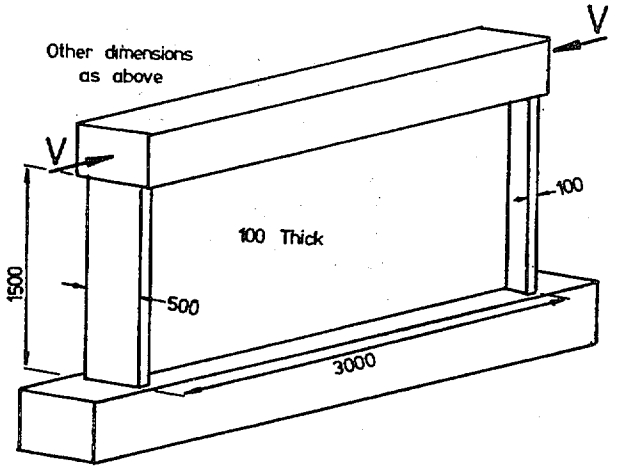
Load-deflection relationship for wall 1.

DAMAGE PATTERNS AND HYSTERETIC RESPONSE

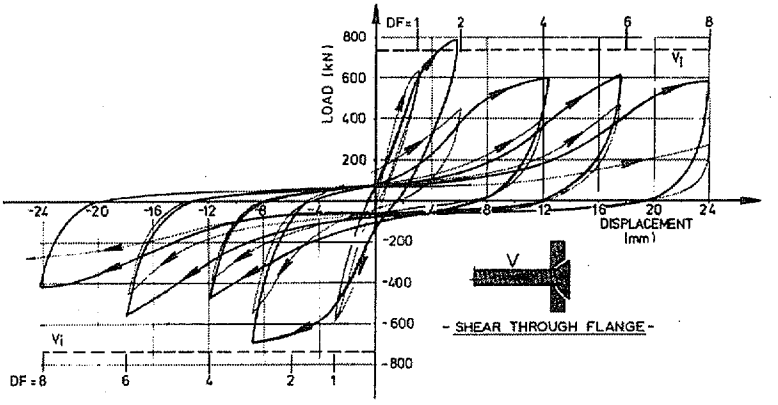
System:	**Reinforced Concrete**
Component Type:	**Isolated Wall or Stronger Wall Pier**
Predominant Behavior Mode:	**Flexure/Sliding Shear**
Secondary Behavior Mode:	—

RC1D **Example 3 of 3**

Reference:	Paulay, Priestley, and Synge (1982))
Specimen:	Wall 3



Overall Dimensions for Walls 3 and 4.



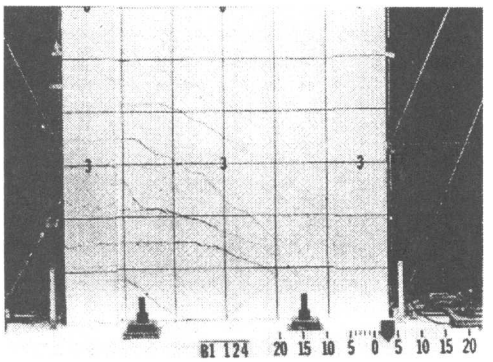
Load-Deflection Relationship for Flanged Wall

DAMAGE PATTERNS AND HYSTERETIC RESPONSE

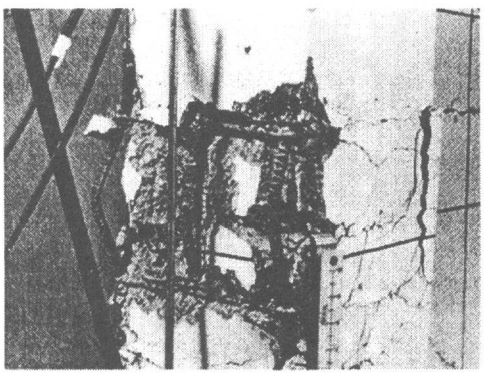
System:	**Reinforced Concrete**
Component Type:	**Isolated Wall or Stronger Wall Pier**
Predominant Behavior Mode:	**Flexure/Boundry Compression**
Secondary Behavior Mode:	—

RC1E **Example 1 of 1**

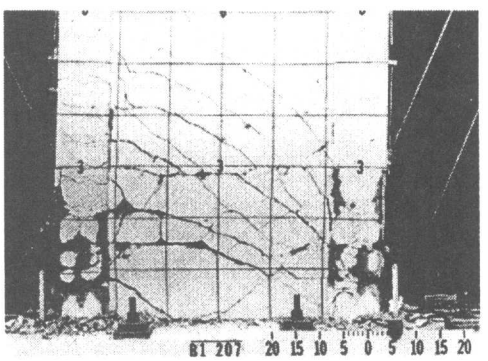
Reference:	Corley, Fioralo, Oesterle (1981), Oesterle et al. (1976), Oesterle et al. (1979)
Specimen:	B1



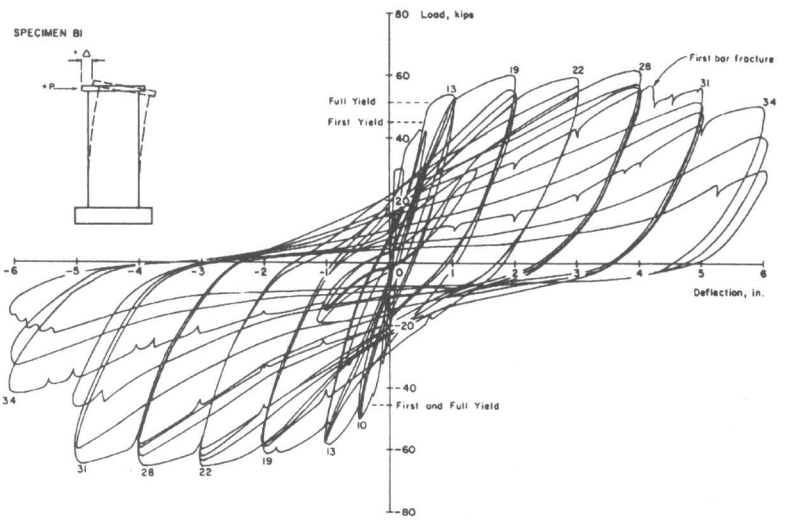
Damage at +3-in. deflection
$\Delta = 3$ in $\quad \Delta/h_w = 0.017 \quad \lambda_Q = 1.0$



Buckled reinforcement after Load Cycle 30
$\Delta = 4$ in $\quad \Delta/h_w = 0.022 \quad \lambda_Q = 0.9$



Damage during Load Cycle 34
$\Delta = 6$ in $\quad \Delta/h_w = 0.033 \quad \lambda_Q = 0.6$



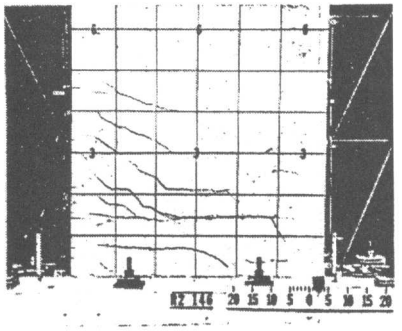
Load versus deflection relationship

DAMAGE PATTERNS AND HYSTERETIC RESPONSE

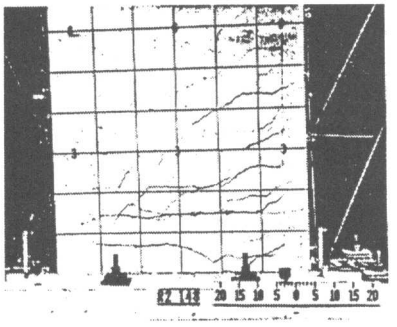
System:	**Reinforced Concrete**
Component Type:	**Isolated Wall or Stronger Wall Pier**
Predominant Behavior Mode:	**Flexure/Out-of-Plane Wall Buckling**
Secondary Behavior Mode:	—

RC1G **Example 1 of 2**

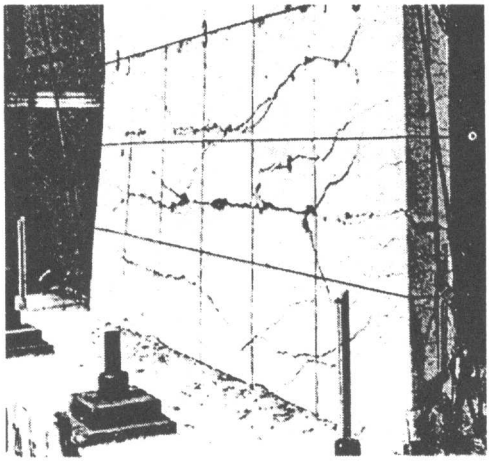
Reference:	Corley, Fioralo, Oesterle (1981), Oesterle et al. (1976), Oesterle et al. (1979)
Specimen:	R2



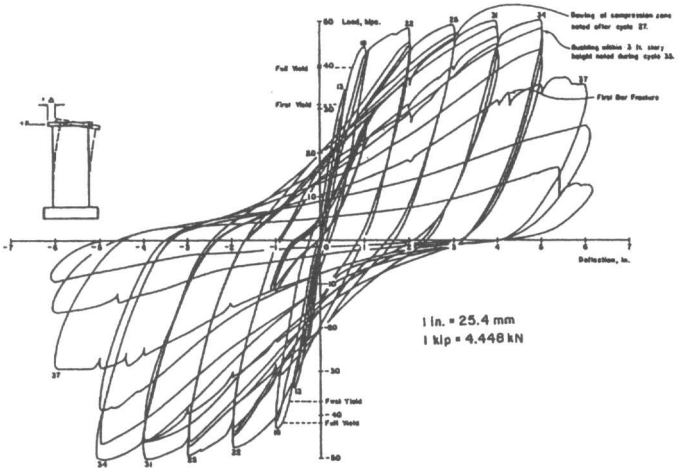
Cracking pattern at +3 in. deflection for Specimen R2



Cracking pattern at -3 in. deflection for Specimen R2



Inelastic instability of compression zone



Continuous load-deflection plot for Specimen R2